Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In re Applications of	)	WT Docket No. 97-199
	)	
WESTEL SAMOA, INC.	)	File No. 00560-CW-L-96
	)	
For Broadband Block C Personal	)	
Communications Systems Facilities	)	
	)	
and	)	
	)	
WESTEL, L.P.	)	File Nos. 00129-CW-L-97
	)	00862-CW-L-97
For Broadband Block F Personal	)	00863-CW-L-97
Communications System Facilities	)	00864-CW-L-97
	)	00865-CW-L-97
	)	00866-CW-L-97

To: Arthur I. Steinberg, ALJ

PRESENTATION OF EXPERT WITNESS REPORT

Pursuant to the Presiding Officer's order in the above captioned proceeding,[1]

ClearComm, L.P. through its undersigned attorneys, hereby submits the report of Robert K.

Ross, its expert regarding matters related to the computer systems of Romulus

Telecommunications, Inc. ("RTI"), including the bids submitted by RTI on behalf of PCS

2000 during Round 11 of the C Block PCS auction on January 23, 1996.[2]

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[1]   Order, *In re Applications of Westel Samoa Inc.*, WT docket No 97-199, File No.
00560-CW-L-96 (March 26, 1998).

[2]   This shall include RTI, its predecessors in interest, successors in interest, divisions,
subsidiaries and affiliates.

As stated by Mr. Ross, the conclusions contained in his report are, by necessity, tentative. Additional information may come to light, such as through the discovery process, of which, all or some may have a substantive and material effect on Mr. Ross' conclusions. Therefore, Mr. Ross has stated his intention to supplement this report at an appropriate time to reflect this additional information.

Respectfully submitted,

Robert L. Pettit
Richard H. Gordin
Bryan N. Tramont

June 1, 1998

WILEY, REIN & FIELDING
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CERTIFICATE OF SERVICE

I hereby certify that on this 1st day of June 1998, I caused copies of the foregoing

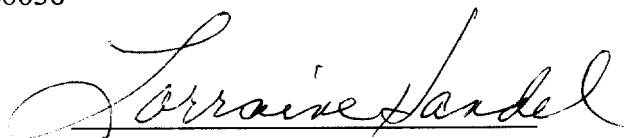"Presentation of Expert Witness Report" to be hand-delivered to:

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<u>Declaration</u>

June 1, 1998

I, Robert K. Ross, hereby declare the following under the penalty of perjury.

I have been retained by the law firm of Wiley, Rein and Fielding, Washington, D.C. to study, evaluate, and report on circumstances surrounding the bidding by PCS2000 on January 23, 1996 as part of round 11 of the FCC C Block auction for Personal Communications Services authorizations.

My Qualifications:

I have been working with computers and computing systems since about 1972. I received a Bachelor's degree in Computer Science from Brigham Young University in 1980. I have worked on many different kinds of systems ranging from mainframes to minicomputers to microcomputers to Local Area Networks (LANs). I began employment with Novell, Inc. in 1987 as a Senior Development Engineer. I was heavily involved in development of NetWare 2.x, 3.x, and 4.x. I left Novell in 1994 to form my own consulting company. Recently, I worked for Novell, on a contractual basis, doing development that is part of NetWare 5 (soon to be released). I am currently an active, voting member of the IEEE 802.5 committee (sets standards for networking communications). I have worked extensively with DOS, Windows, NetWare, and LANs. I hold a number of professional certifications, including Master Certified NetWare Engineer (MCNE), Master Certified NetWare Instructor (MCNI), Microsoft Certified Trainer (MCT), Certified Security Specialist, Certified Network Professional (CNP), and other certifications as an engineer and/or instructor from IBM, Cheyenne, and Hewlett Packard. I have published articles about networking that have been printed in magazines from the United States to Africa.

Materials studied:

To date, I have studied the materials listed in appendix A of this report. These include, among other things, statements, depositions, declarations, minutes, letters, reports, an FCC order, fifteen 3.5" floppy diskettes and a 4mm DDS DAT backup tape. I am continuing to review the fifteen 3.5" floppy diskettes and the 4mm DDS DAT backup tape. I anticipate that more information will come to my attention after this report is completed. I will amend or supplement this report with any changes or additions required as a result of that additional information at that time.

Analysis:

I. Computer System:

In order to correctly analyze the computer system in question, I needed to answer these basic questions:

1.   What form of networking was in use? (Peer-to-peer or client-server?)
2.   How many network servers were involved? (if client-server)
3.   What network operating system was running on the network server? (if client-server)
4.   What volumes (disk drives) were on the network server?
5.   How many client computers were attached to the network?
6.   What was the operating system running on each of the client computers?
7.   What other computers were involved?
8.   How many printers were part of the network?
9.   How were each of the printers attached to the network (internal print server, external print server, direct connected to network server, etc.)
10.   What software was used with the bidding files?
11.   What behavior did the bidding software use to update files? (modify/create a new file or modify original file?)
12.   What backup software was in use?
13.   What backup hardware was in use?
14.   What kind of backups were performed? (full, incremental, or differential?)
15.   How often were the backups performed?
16.   What was the backup media rotation scheme in use?
17.   What data was backed up each time?

With the answers to these questions, I could then determine how the system functioned and look for clues as to what data should have existed and where it should be found. There was information regarding other computers and other equipment that were part of the network, but they did not change the outcome of the analysis, these were excluded from this report. Only equipment that was directly involved with the bidding system is included in the focus of this report.

Here are the answers to the questions as I understand from the information that I have reviewed to date:

1.   What form of networking was in use? (Peer-to-peer or client-server?)

        Client-server networking was in use.

2.   How many network servers were involved? (if client-server)

        One NetWare server.

3.   What network operating system was running on the network server? (if client-server)

        The NetWare server was running NetWare version 3.12.

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4.   What volumes (disk drives) were on the network server?

There existed at least a SYS: and a DATA: volume.

5.   How many client computers were attached to the network?

a) one client computer in Mr. Easton's office.
b) one client computer in Ms. Hamilton's office.
c) there was another computer in the conference room but it does not factor into this situation.

6.   What was the operating system running on each of the client computers?

a) DOS running Windows 3.1x in Mr. Easton's office.
b) DOS running Windows 3.1x in Ms. Hamilton's office.

7.   What other computers were involved?

One UNIX computer that may have been acting as a client to the NetWare server as far as the data flow was concerned.

8.   How many printers were part of the network?

The information on the printers is sketchy, but it looks like there was one QMS printer attached to the UNIX computer and at least two HP LaserJet printers.

9.   How were each of the printers attached to the network (internal print server, external print server, direct connected to network server, etc.)

Unknown.

10.   What software was used with the bidding files?

a) UNIX software was used to download (via FTP) the bidding information from the FCC computer systems. The manufacturer and version of the UNIX and FTP software is unknown, but does not change the outcome of the analysis.

b) Microsoft Excel was used to import, manipulate, and output bidding data files by the bidding agent. This was a program known as the BTA Selection Program.

c) Windows 3.1x bidding software, supplied by the FCC, was used to upload bidding information to the FCC computer systems. The computer running this software was in Ms. Hamilton's office and is sometimes referred to as the FCC Uplink Computer.

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11. What behavior did the bidding software use to update files? (modify/create a new file or modify original file?)

The BTA Selection Program ran in Microsoft Excel. Since the version of Excel that was in use is currently unknown, I performed some testing using version 5.0c of Excel that was available and widely in use during January 23, 1996. Since file update behavior rarely changes from version to version of major applications such as Excel, this assumption has a very high probability of being correct.

I found that Excel saves data to an existing data file, it renames the original data file to a name of its own creation, overwrites the original data file with the new information, and then deletes the original data file.

12. What backup software was in use?

Unknown.

13. What backup hardware was in use?

Backups were done to 4mm DDS DAT tape. The make and model of the tape drive is unknown.

14. What kind of backups were performed? (full, incremental, or differential?)

Full backups were performed.

15. How often were the backups performed?

Daily and weekly backups were performed.

16. What was the backup media rotation scheme in use?

The daily backup tapes were overwritten on a two week cycle.
The weekly backup tapes were overwritten on a five week cycle.

17. What data was backed up each time?

Backup of the entire network server.

II. Data Flow:

After careful review the of materials available to me, I have been able to create, as it existed on January 23, 1996, a diagram that shows the flow of data in the bidding system in question. A diagram of the data as it flowed through the computer system is included as appendix B of this report.

The basic steps are:

1. Twelve data files were downloaded by FTP from the FCC computer system by the UNIX computer and stored in its /home/ftp/pub/Auction/PCS/Broadband/BTA/Results directory. These files were named 5_xxxy.zzz, where:

xxx is the round number

y is a letter as follows:
    S = submitted bids
    X = high bids before withdrawal
    E = eligibility of bidders
    W = withdrawn bids
    Y = high bids after withdrawal
    M = minimum bids for next round

zzz is "DBF" for database files or "TXT" for ASCII text files.

For example, the files for round 11 on January 23, 1996 were:

        5_011S.DBF
        5_011S.TXT
        5_011X.DBF
        5_011X.TXT
        5_011E.DBF
        5_011E.TXT
        5_011W.DBF
        5_011W.TXT
        5_011Y.DBF
        5_011Y.TXT
        5_011M.DBF
        5_011M.TXT

Flash reports were created and printed from these files. Typically, the S, X, and E files were downloaded before the withdrawal period ended and flash reports were printed. Also, typically the W, Y, and M files were downloaded after the withdrawal period ended and flash reports printed.

2. The twelve files were copied from the UNIX computer into subdirectories on the NetWare server. Copies of the files were placed in three directories:

    a. SMG_2\DATA:PCSWIMSY\IMPORT\FROM_FCC
    b. SMG_2\DATA:PCSWIMSY\IMPORT\FOR_MIKE
    c. SMG_2\DATA:PCSWIMSY\ACCESS

3. The BTA Selection Program (the bidding program that was run in Excel) was then run by the bidding agent on a DOS/Windows 3.1x workstation. The information that I reviewed to date seems to indicate that the BTA Selection program would create a file named BTA_INS2.XLS in the "FCC internal bidding subdirectory" on the NetWare server by pulling in information from the six DBF files moved into the SMG_2\DATA:PCSWIMSY\IMPORT\FOR_MIKE directory in step 2 above. I have been unable to determine the name or exact location of the "FCC internal bidding subdirectory" directory from the information that I currently have. The information that I have reviewed does indicate though that a file named BTA_INS2.XLS in the "FCC internal bidding subdirectory" on the NetWare server was created somehow by pulling in information from the six DBF files moved into the SMG_2\DATA:PCSWIMSY\IMPORT\FOR_MIKE directory in step 2 above.

4. The bidding agent next selected markets and determined the bids for the next round on the screen of the DOS/Windows 3.1x workstation using the BTA Selection Program.

5. Next, the BTA Selection Program created a file named Mxxxxyyy.DBF (where xxxx is the month and day and yyy is the round number) in at least two, and up to three directories. The possible directories were:

    a. SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC directory on the NetWare server.
    b. a directory on the local C: drive. I have been unable to determine the exact location and name of this directory.
    c. a directory on the local A: drive, only if a diskette was in the A: drive at the time. I have been unable to determine the exact location and name of this directory.

The filename for Round 11 on January 23, 1996 was M0123011.DBF. A report called "Upload to FCC" was automatically created at this point. The "Upload to FCC" report can be identified by the word "Upload_to_FCC" at the top center of each page. Two other reports could also be generated at this time. They have been called the "Control A", and "Control P" reports. The "Control A" report is identified by the word "Print_All" at the center top of each page of the report. The "Control P" report is identified by "J:\" and the path and filename at the top left of each page. For example, the "Control P" report for January 23, 1996 has "J:\PCSWIMSY\EXPORT\TO_FCC\M0123011.DBF" at the top left of each page.

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6. Next, the FCC provided upload program was run on the FCC Uplink Computer. It would gather its data from the Mxxxxyyy.DBF file in the SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC directory on the NetWare server. Changes to the data could be made manually at this time. A printed copy of what appeared on the screen could be printed. This is referred to at the "Screen Preview" report. It can be identified by a title page that included information such as Authorized Bidders and subsequent pages that listed bids for each market with the date and the word "PREVIEW" at the top right of each page. The normal procedure was, at a minimum, to compare the "Activity(Bid-Units)", "Total", and the count of the bids on the "Screen Preview" report to the "Bid Units - ", "New Bids - " dollar amount, and the "New Bids: Count - " on the "Control P" report to ensure that the data in the BTA Selection Program matched the data in the FCC Upload Program. If the data matched, the operator would complete the upload of bidding information to the FCC computer system.

7. At some later time, a copy of the Mxxxxyyy.DBF file in the SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC directory would be moved into the SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC\ARCHIVE directory on the NetWare server. On January 23, 1996, the file was named M0123011.DBF.

8. Also at some later time, a copy of the BTA_INS2.XLS file in the "FCC internal bidding subdirectory" on the NetWare server would be moved to the SMG_2\DATA:PCSWIMSY\DEVELOP directory on the NetWare server.

9. On January 23, 1996, Mr. Gavette also made a copy of the BTA_INS2.XLS file in the SMG_2\DATA:PCSWIMSY\DEVELOP directory on the NetWare server and called the new file BTA_INS3.XLS.

10. The process would then go back to step #1 and start over for the next round.

Conclusions:

1. I have found the contents of all 12 copies of the M0123011.DBF files that I have received on diskette to be identical. Each of the 12 files were last modified Tuesday, January 23, 1996 at 1:08:32PM. I can not determine what data was last changed on that date and time but the fact that the time is 2 hours and 8 minutes AFTER the close of the bid withdrawal period is noteworthy. I also received the Mxxxxyyy.DBF files for rounds 2, 3, 4, 10, 11, 12, 13, and 14. Assuming the bid date for round 2 was December 19, 1995, for round 3 was December 20, 1995, for round 4 was December 21, 1995, for round 10 was January 22, 1996, for round 11 was January 23, 1996, for round 12 was January 24, 1996, for round 13 was January 25, 1996, and for round 14 was January 26, 1996, then each of the files for rounds 2, 3, 4, 10, 12, 13, and 14 were last modified no later than 11:01AM the day of the bidding. Most files were last modified well before 11:00AM on the day of bidding, some even the day before the bidding. So for the round 11 file to be last modified at 1:08PM on the day of bidding is even more striking.

2. **Given:**

   a. The file 5_010M.DBF shows the minimum bid for market B324 for round 11 to be $18,006,000. A printout of this is included as appendix C of this report.

   b. The files 5_011S.DBF, 5_011X.DBF, and 5_011Y.DBF show that bidder 2301 (PCS2000) entered a bid for market B324 of $180,060,000 on 1/23/96 at 12:42:43PM EST or 9:42:43AM PST. All of PCS2000's bids for 1/23/96 show a time of 12:42:43PM EST or 9:42:43AM PST so that is when the bid file must have been uploaded to the FCC from the FCC Upload Computer. Printouts of this are included as appendix D of this report. Flash reports printed on January 23, 1996 at 11:02:30AM (before the close of the withdrawal period) and 12:11:44PM (after the close of the withdrawal period) show a bid amount of $180,060,000, which confirm the contents of these files at that date and time.

   c. The file M0123011.DBF dated 1/23/96 and last modified at 1:08:32PM shows a bid for market B324 of $18,006,000. A printout of this is included as appendix E of this report.

   d. I have seen different versions of the"Control P" and "Control A" reports. One version of each show a bid of $180,060,000 for market B324 and another version of each show a bid of $18,006,000 for market B324.

It must be concluded from a, b, c, and d above that on January 22, 1996, the minimum bid of $18,006,000 for market B324 came in correctly from the FCC computer systems to the UNIX computer. The minimum bid then remained $18,006,000 as it passed from the UNIX computer into the DOS/Windows 3.1x computer running the BTA Selection Program and into the BTA_INS2.XLS and M0123011.DBF files. On January 23, 1996, the bid that was intended to be $18,006,000 for market B324, had to have been somehow changed to $180,060,000 in the BTA Selection Program since only the BTA Selection program could print "Control P" and "Control A" reports and there are versions of these reports that show $180,060,000 as the bid. Then the bid would have to have been changed back to $18,006,000 in the BTA Selection Program at or before 1:08PM and saved back to the file M0123011.DBF at 1:08PM and to the file BTA_INS2.XLS at some unknown time on January 23, 1996. Given this, then different versions of the files M0123011.DBF and BTA_INS2.XLS could show when these changes were made. Unfortunately, only M0123011.DBF, last modified at 1:08PM, is available.

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3. Given our interest in the M0123011.DBF and BTA_INS2.XLS files, and the flow of data in the system, after bidding had closed on the day of January 23, 1996 and steps 1 through 9 above were completed, there should have been the following copies of the files in the following locations:

  a. <"FCC internal bidding subdirectory" on the NetWare server>\BTA_INS2.XLS
  b. <a directory on the local C: drive>\M0123011.DBF on Mr. Easton's computer.
  c. <a directory on the local A: drive>\M0123011.DBF on Mr. Easton's computer.
  d. SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC\M0123011.DBF on the NetWare server.
  e. SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC\ARCHIVE\M0123011.DBF on the NetWare server.
  f. SMG_2\DATA:PCSWIMSY\DEVELOP\BTA_INS2.XLS on the NetWare server
  g. SMG_2\DATA:PCSWIMSY\DEVELOP\BTA_INS3.XLS on the NetWare server
  h. copies of files a, d, e, f, and g on the daily backup tapes
  i. copies of files a, d, e, f, and g on the weekly backup tapes

Expected and actual status of these files are:

  a. <"FCC internal bidding subdirectory" on the NetWare server>\BTA_INS2.XLS
  It would have been overwritten by a new version of the BTA_INS2.XLS file on January 24, 1996.

  b. <a directory on the local C: drive>\M0123011.DBF on Mr. Easton's computer.
  It was probably the January 23, 1996 1:08PM version of the file. According to the materials that I have reviewed, this file no longer exists on the computer.

  c. <a directory on the local A: drive>\M0123011.DBF on Mr. Easton's computer.
  It only existed if a diskette was in the A: drive at the time the BTA Selection Program performed a save of the data. It was probably the 1:08PM version of the file. I have examined a copy of a diskette that has a label that claims this to be a copy of the diskette from the A: drive of Mr. Easton's machine. It has the January 23, 1996 1:08PM version of M0123011.DBF on it.

  d. SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC\M0123011.DBF on the NetWare server.
  This file should still exist and may or may not have been the January 23, 1996 1:08PM version. The Wilson Report exhibit Z shows that this file is missing from this directory.

e. SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC\ARCHIVE\M0123011.DBF on the NetWare server.
This file should still exist and may or may not have been the January 23, 1996 1:08PM version. The Wilson Report exhibit Y shows that this file is missing from this directory.

f. SMG_2\DATA:PCSWIMSY\DEVELOP\BTA_INS2.XLS on the NetWare server
It would have been overwritten by a new version of the BTA_INS2.XLS file on January 24, 1996.

g. SMG_2\DATA:PCSWIMSY\DEVELOP\BTA_INS3.XLS on the NetWare server
This file should still exist. According to all accounts, it was uniquely named and should never have been erased or overwritten. According to the Wilson Report it does not exist.

h. copies of files a, d, e, f, and g on the daily backup tapes
Files a and f would have been changed on January 24, 1996 so only the January 23, 1996 daily backup tape would have contained files a and f in the January 23, 1996 version. Since the daily backup tapes are overwritten on a two week cycle, this tape would have been overwritten and the January 23, 1996 version of files a and f lost from it on February 6, 1996. According to the information that I have reviewed, this is what happened. Files d, e, and g should still exist on the NetWare server and hence should still exist on the daily backup tapes. They would still exist on at least one daily backup tape up until two weeks after the files were erased from the NetWare server.

i. copies of files a, d, e, f, and g on the weekly backup tapes
Files a and f would have been changed on January 24, 1996 so the January 27, 1996 weekly backup tape would not have contained files a and f in the January 23, 1996 version. Files d, e, and g should still exist on the NetWare server and hence should still exist on the weekly backup tapes. Since weekly backup tapes are overwritten on a five week cycle, files d, e, and g would still exist on at least one weekly backup tape up until five weeks after the files were erased from the NetWare server.

The fact that file c exists but only in the January 23, 1996 1:08PM version is not too surprising. The latest version may have been saved and hence overwritten all previous versions. What is telling is that files d, e, and g are missing from the NetWare server and the daily and weekly backup tapes. If these three files are missing from all three locations, this would seem to be a highly improbable occurrence.

4. I have examined a copy of a "Control A" and a "Control P" report that Mr. Easton stated that he removed from the "wall bulletin" later in the day on January 23, 1996. The "Control A" report from the "wall bulletin" shows a "Count: " of 25. I have also examined a "Control A" report that came from Ms. Hamilton that shows a "Count: " of 64 and a "Control A" report that came from Mr. Easton, identifiable by the handwritten "Round 11" and "23 Jan 96" on it that shows a "Count: " of 61 (reflecting the 3 total markets that Ms. Hamilton said were removed). The "Control P" report from the "wall bulletin" shows a "Totals: Count - " of 25 and a "New Bids: Count - " of 0. I have also examined a "Control P" report from Ms. Hamilton, identifiable by the handwritten "23 Jan 96 @9:32AM", that shows a "Totals: Count - " of 64 and a "New Bids: Count - " of 41 and a "Control P" report from Mr. Easton, identifiable by the handwritten "23 Jan 96 @9:35AM" on it, that shows a "Totals: Count - " of 61 and a "New Bids: Count - " of 38 (reflecting the 3 total markets that Ms. Hamilton said were removed). Both of the reports from the "wall bulletin" show a bid amount of $180,060,000 for market B324. The 25 markets shown on the "Control P" report from the "wall bulletin" are the exact same 25 markets for which PCS2000 was the high bidder on January 23, 1996. From the data in the files 5_010X.DBF and 5_010Y.DBF, PCS2000 was high bidder on 23 markets for round 10 and from file 5_012X.DBF, PCS2000 was high bidder on 31 markets before the withdrawal period closed for round 12 and from 5_012Y.DBF, PCS200 was high bidder on 30 markets after the withdrawal period closed for round 12 (PCS2000 withdrew its bid of $180,060,000 for market B324). Given this, it appears that the "wall bulletin" reports came from a version of the SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC\M0123011.DBF file that had data in it from the 5_011X.DBF or 5_011Y.DBF files downloaded after the bidding on round 11 on January 23, 1996 had been uploaded to the FCC. The file 5_011X.DBF contains information on the current high bids before the close of the withdrawal period for round 11. The file 5_011Y.DBF contains information on the current high bids after the close of the withdrawal period for round 11. The data in these files would normally have flowed into the file SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC\M0124012.DBF and not into the file SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC\M0123011.DBF.   Printouts of the 25 markets for which PCS2000 was high bidder in the 5_011X.DBF and 5_011Y.DBF files are included as part of appendix D of this report. I have also seen a file that is named M0124011.DBF. It contains identical Excel data to the information in file M0124012.DBF that is for round 12. The M0124011.DBF file appears to be misnamed. I have been unable to reconcile any of this information.

All of the above facts are true and correct to the best of my personal knowledge, information and belief, and a proffered in good faith.

6/1/98
Date

Robert K. Ross
Robert K. Ross

Appendix A

Materials reviewed through May 29, 1998:

1. Deposition of Cynthia Hamilton 2/6/97

2. Declaration of Cynthia Hamilton 1/24/96

3. Minutes of the Meeting of the Board of Directors of Unicom 1/27/96

4. Statement of Anthony T. Easton concerning FCC Auction 5 PCS bidding on 1/23/96 by PCS2000 L.P.

5. Declaration of Javier O. Lamoso 2/21/96

6. Letter to Joseph Weber from Michael Deuel Sullivan of Wilkinson, Barker, Knauer & Quinn re Investigation with respect to Anthony T. Easton's roll in the PCS2000 C Block bidding error 7/97

7. Deposition of Ronit Milstein 2/6/97

8. Materials from Dr. William Pezzaglia

9. FCC Order to Show Cause 9/8/97

10. Declaration of Dr. William Pezzaglia 1/6/97

11. Declaration of Mr. Michael R. Gavette 12/6/96

12. The Wilson Report 2/19/96 (with exhibits)

13. The Gutierrez Report 1/7/97 (with exhibits)

14. Deposition of Javier O. Lamoso 2/20/97

15. Deposition of Javier O. Lamoso 12/10/97

16. Fifteen 3.5" diskettes

Appendix B

FCC Computer systems

UNIX computer

/home/ftp/pub/Auction/PCS/Broadband/BTA/Results/5_xxxy.zzz (12 files)

NetWare 3.12 Server

SMG_2\DATA:PCSWIMSY\IMPORT\FROM_FCC\5_xxxy.zzz

SMG_2\DATA:PCSWIMSY\IMPORT\FOR_MIKE\5_xxxy.zzz

SMG_2\DATA:ACCESS\5_xxxy.zzz

"FCC Internal Bidding Subdirectory"\BTA_INS2.XLS   Reports   Control A
BTA Selection Program   Control P
                           Upload to FCC

SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC\M0123011.DBF

Mr. Gavette

SMG_2\DATA:PCSWIMSY\EXPORT\TO_FCC\ARCHIVE\M0123011.DBF

Mr. Gavette

SMG_2\DATA:PCSWIMSY\DEVELOP\BTA_INS2.XLS

Mr. Gavette

SMG_2\DATA:PCSWIMSY\DEVELOP\BTA_INS3.XLS
(Daily and Weekly backup tapes of entire system)

Mr. Easton's computer

C:M0123011.DBF

A:M0123011.DBF

Ms. Hamilton's computer

Screen Preview   Reports   FCC Upload Program

FCC computer systems

Appendix C   5_010M.DBF

MARKET	FREQ_BLOCK	ROUND_NUM	PREVIOUS_H	MIN_ACCEPT
B324	C	10	16369313	18006000

Appendix D Page 1   5_011S.DBF

BID_TYPE	MARKET	FREQ_BLOCK	ROUND_NUM	BID_AMT	BIDD	DATE	TIME
S	B184	C	11	16378000	2301	1/23/96	12:42:43
S	B318	C	11	9815000	2301	1/23/96	12:42:43
S	B453	C	11	1188000	2301	1/23/96	12:42:43
S	B402	C	11	23650000	2301	1/23/96	12:42:43
S	B245	C	11	10861000	2301	1/23/96	12:42:43
S	B078	C	11	207097000	2301	1/23/96	12:42:43
S	B404	C	11	147497000	2301	1/23/96	12:42:43
S	B389	C	11	14080000	2301	1/23/96	12:42:43
S	B074	C	11	20403000	2301	1/23/96	12:42:43
S	B368	C	11	11396000	2301	1/23/96	12:42:43
S	B364	C	11	16107000	2301	1/23/96	12:42:43
S	B030	C	11	951000	2301	1/23/96	12:42:43
S	B437	C	11	445000	2301	1/23/96	12:42:43
S	B469	C	11	9834000	2301	1/23/96	12:42:43
S	B484	C	11	1429000	2301	1/23/96	12:42:43
S	B081	C	11	22292000	2301	1/23/96	12:42:43
S	B073	C	11	1397000	2301	1/23/96	12:42:43
S	B350	C	11	35872000	2301	1/23/96	12:42:43
S	B110	C	11	21780000	2301	1/23/96	12:42:43
S	B324	C	11	180060000	2301	1/23/96	12:42:43
S	B374	C	11	12612000	2301	1/23/96	12:42:43
S	B413	C	11	36977000	2301	1/23/96	12:42:43
S	B488	C	11	17577000	2301	1/23/96	12:42:43
S	B263	C	11	15642000	2301	1/23/96	12:42:43
S	B135	C	11	1464000	2301	1/23/96	12:42:43
S	B347	C	11	39705000	2301	1/23/96	12:42:43
S	B044	C	11	12412000	2301	1/23/96	12:42:43
S	B261	C	11	282000	2301	1/23/96	12:42:43
S	B204	C	11	14556000	2301	1/23/96	12:42:43
S	B401	C	11	14037000	2301	1/23/96	12:42:43
S	B226	C	11	15621000	2301	1/23/96	12:42:43
S	B060	C	11	11288000	2301	1/23/96	12:42:43
S	B379	C	11	9375000	2301	1/23/96	12:42:43
S	B399	C	11	8162000	2301	1/23/96	12:42:43
S	B095	C	11	16149000	2301	1/23/96	12:42:43
S	B329	C	11	11152000	2301	1/23/96	12:42:43
S	B314	C	11	16524000	2301	1/23/96	12:42:43
S	B232	C	11	7928000	2301	1/23/96	12:42:43

Appendix D Page 2   5_011X.DBF

BID_TYPE	MARKET	FREQ_BLOCK	ROUND_NUM	BID_AMT	BIDD	DATE	TIME
H	B463	C	4	592506	2301	12/21/95	11:32:07
H	B117	C	4	160006	2301	12/21/95	11:32:07
H	B203	C	4	119100	2301	12/21/95	11:32:07
H	B120	C	4	138100	2301	12/21/95	11:32:07
H	B125	C	4	132100	2301	12/21/95	11:32:07
H	B295	C	4	162100	2301	12/21/95	11:32:07
H	B443	C	5	511966	2301	1/5/96	11:56:56
H	B299	C	5	149003	2301	1/5/96	11:56:56
H	B052	C	5	292100	2301	1/5/96	11:56:56
H	B150	C	5	170100	2301	1/5/96	11:56:56
H	B337	C	5	157100	2301	1/5/96	11:56:56
H	B258	C	5	105100	2301	1/5/96	11:56:56
H	B219	C	5	290004	2301	1/5/96	11:56:56
H	B200	C	5	166100	2301	1/5/96	11:56:56
H	B014	C	5	777888	2301	1/5/96	11:56:56
H	B136	C	5	122508	2301	1/5/96	11:56:56
H	B489	C	10	6441000	2301	1/22/96	12:29:03
H	B453	C	11	1188000	2301	1/23/96	12:42:43
H	B030	C	11	951000	2301	1/23/96	12:42:43
H	B437	C	11	445000	2301	1/23/96	12:42:43
H	B484	C	11	1429000	2301	1/23/96	12:42:43
H	B073	C	11	1397000	2301	1/23/96	12:42:43
H	B324	C	11	180060000	2301	1/23/96	12:42:43
H	B135	C	11	1464000	2301	1/23/96	12:42:43
H	B261	C	11	282000	2301	1/23/96	12:42:43

Appendix D Page 3   5_011Y.DBF

BID_TYPE	MARKET	FREQ_BLOCK	ROUND_NUM	BID_AMT	BIDDER_NUM	DATE	TIME
H	B463	C	4	592506	2301	12/21/95	11:32:07
H	B117	C	4	160006	2301	12/21/95	11:32:07
H	B203	C	4	119100	2301	12/21/95	11:32:07
H	B120	C	4	138100	2301	12/21/95	11:32:07
H	B125	C	4	132100	2301	12/21/95	11:32:07
H	B295	C	4	162100	2301	12/21/95	11:32:07
H	B443	C	5	511966	2301	1/5/96	11:56:56
H	B299	C	5	149003	2301	1/5/96	11:56:56
H	B052	C	5	292100	2301	1/5/96	11:56:56
H	B150	C	5	170100	2301	1/5/96	11:56:56
H	B337	C	5	157100	2301	1/5/96	11:56:56
H	B258	C	5	105100	2301	1/5/96	11:56:56
H	B219	C	5	290004	2301	1/5/96	11:56:56
H	B200	C	5	166100	2301	1/5/96	11:56:56
H	B014	C	5	777886	2301	1/5/96	11:56:56
H	B136	C	5	122508	2301	1/5/96	11:56:56
H	B489	C	10	6441000	2301	1/22/96	12:29:03
H	B453	C	11	1188000	2301	1/23/96	12:42:43
H	B030	C	11	951000	2301	1/23/96	12:42:43
H	B437	C	11	445000	2301	1/23/96	12:42:43
H	B484	C	11	1429000	2301	1/23/96	12:42:43
H	B073	C	11	1397000	2301	1/23/96	12:42:43
H	B324	C	11	180060000	2301	1/23/96	12:42:43
H	B135	C	11	1464000	2301	1/23/96	12:42:43
H	B261	C	11	282000	2301	1/23/96	12:42:43

Appendix E   M0123011.DBF

N1	N2	N3	N4	N5	N6	N7
B078	C	0	FCC		0	0	207097000
B404	C	0	FCC		0	0	147497000
B413	C	0	FCC		0	0	36977000
B350	C	0	FCC		0	0	35872000
B402	C	0	FCC		0	0	23650000
B347	C	0	FCC		0	0	39705000
B488	C	0	FCC		0	0	17577000
B110	C	0	FCC		0	0	21780000
B081	C	0	FCC		0	0	22292000
B226	C	0	FCC		0	0	15621000
B074	C	0	FCC		0	0	20403000
B389	C	0	FCC		0	0	14080000
B324	C	0	FCC		0	0	18006000
B401	C	0	FCC		0	0	14037000
B364	C	0	FCC		0	0	16107000
B095	C	0	FCC		0	0	16149000
B314	C	0	FCC		0	0	16524000
B263	C	0	FCC		0	0	15642000
B204	C	0	FCC		0	0	14556000
B399	C	0	FCC		0	0	8162000
B329	C	0	FCC		0	0	11152000
B060	C	0	FCC		0	0	11288000
B044	C	0	FCC		0	0	12412000
B184	C	0	FCC		0	0	16378000
B379	C	0	FCC		0	0	9375000
B374	C	0	FCC		0	0	12612000
B368	C	0	FCC		0	0	11396000
B318	C	0	FCC		0	0	9815000
B232	C	0	FCC		0	0	7928000
B469	C	0	FCC		0	0	9834000
B245	C	0	FCC		0	0	10861000
B135	C	0	FCC		0	0	1464000
B484	C	0	FCC		0	0	1429000
B073	C	0	FCC		0	0	1397000
B030	C	0	FCC		0	0	951000
B453	C	0	FCC		0	0	1188000
B437	C	0	FCC		0	0	445000
B261	C	0	FCC		0	0	282000